

DETAILED ACTION

Claims 6-20 and 26 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

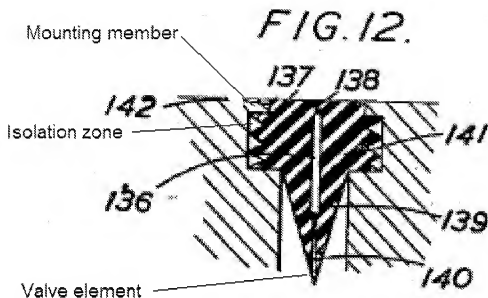
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Le Clair (2,595,211).

Le Clair discloses a "sports ball" valve of a one piece construction (as shown in Figure 12) comprising, a disc-shaped mounting member (the portion of the valve 141 which is contacting the uppermost horizontal wall section of the groove of 90, is considered as a disc-shaped mounting member) being adapted to provide for mounting of the valve, and a valve element (Figure 12) connected to the mounting member and being of a conical (139) or frusto-conical shape having its reduced diameter portion directed in a forward flow direction, the valve element including a collapsible aperture (140) which is located at or adjacent the reduced diameter portion and which in an open condition allows for flow of a fluid in the forward direction through the valve while in a closed condition the collapsible aperture prevents flow of the fluid in a reverse direction, the valve element being connected to the mounting member via an isolation zone defined by an annular recess (between 142 and 136) of the valve which is configured to reduce the likelihood of the collapsible aperture opening under application of external

operational forces to the mounting member, the isolation zone being disposed intermediate the mounting member and the valve element, the valve element thus being of a bulbous element (in the broadest reasonable interpretation the tapered shaped valve element area is considered to be that of a "bulb"), with the valve element having a maximum transverse diameter greater than a transverse diameter of the isolation zone (as shown in the amended Figure 12 below, the isolation zone, being the open space with a "v-notch" has a smaller diameter, from a transverse cross-section, at the lowest part of the vertex or root, than does the outermost portion or crest part of the valve 141 is shown as having).

With regard to the preamble directed to a "sports ball", a preamble to a claim is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self contained description of the structure not depending for completeness upon the introductory clause. See *Kropa v. Robie, supra at 480*. See also *Ex parte Mott*, 190 USPQ 311, 313 (PTO Bd. of App. 1975). Clearly, the pending claim 1 does not rely on the preamble for completeness.



Regarding claim 7, Le Clair discloses that the collapsible aperture is arranged to open under fluid pressure alone "without relying upon an injector which penetrates the collapsible aperture". Since the valve is constructed as a slit type valve the valve is configured to open under fluid pressure alone, depending on the amount of pressure applied and the material and design configuration of the valve.

Regarding claim 8, Le Clair discloses that the collapsible aperture is arranged to receive an injector (Col. 3, Lns. 47-59).

Regarding claim 9, Le Clair discloses that the valve element is at least in part formed from a resilient material (Col.13, Lns. 13-17).

Regarding claim 10, Le Clair discloses that the isolation zone is more flexible than the valve element, as shown by the reduction in cross section of the zones versus the valve element.

Regarding claim 11, Le Clair discloses that the annular recess is defined or formed by a reduction in the cross-sectional area of the valve as shown in Figure 12.

Regarding claim 12, Le Clair discloses that the isolation zone comprises a narrowed neck portion of the valve which joins the mounting member (142) and the valve element.

Regarding claim 13, Le Clair discloses that the transverse cross-sectional area of the valve at the isolation zone is approximately 30 to 80% of the maximum transverse cross-sectional area of the valve element as shown in Figure 12.

Regarding claim 14, Le Clair discloses that the isolation zone is one of two or more isolation zones as shown in Figure 12.

Regarding claims 15 and 16, Le Clair discloses another mounting member (the surface opposite of 142 which contacts the smaller bore shown in Figure 12), the other mounting member being connected to the mounting member via one or more of the isolation zones or additional isolation zones which allow the mounting member and other mounting member to move substantially independently of each other, wherein the mounting member and other mounting member are connected to, or arranged for connection to, a mounting surface (the surface of 93).

Regarding claims 17 and 18, Le Clair discloses that one of the mounting surfaces (142) is connected to or forms part of a first vessel (the vessel around 102), and

wherein another of the mounting surfaces (the surface opposite of 142 which contacts the smaller bore shown in Figure 12) is connected to or forms part of a second vessel (the area surrounding 140).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6,15,19,20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson (2,295,804) in view of Le Clair '211.

Regarding claims 6 and 26, Olson discloses a disc-shaped mounting member (13) used for attachment to the wall of a "sports" ball (10, Col. 2, Lns. 1-5), and a valve element (18,21) being of a conical shape as shown in Figure 2, having its reduced diameter portion (21) directed in a forward flow direction, the valve element including a collapsible aperture (22a) located at or adjacent the reduced diameter portion and which in an open condition allows for flow of a fluid in the forward direction through the valve

whilst in a closed condition the collapsible aperture prevents flow of the fluid in a reverse direction, the valve element being connected to the mounting member via an isolation zone defined by an annular recess (19) of the valve which is configured to reduce the likelihood of the collapsible aperture opening under application of external operational forces to the mounting member.

Regarding claims 19 and 20, Olson discloses a valve for an inflatable article which teaches the use of a flexible sleeve (12, Col. 2, Lns. 6-9, "The valve casing ...is constructed of a soft pliable elastic material...") that surrounds at least in part the isolation zone of the valve element, and wherein the flexible sleeve is extendable and contractible in an axial direction, as shown in Figure 1.

Olson is silent to having a valve with another mounting member, the other mounting member being connected to the mounting member via one or more of the isolation zones or additional isolation zones which allow the mounting member and other mounting member to move substantially independently of each other and that the valve element is of a bulbous configuration.

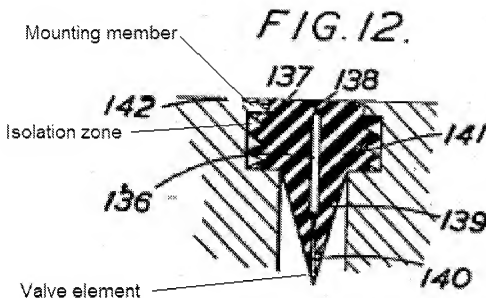
Le Clair discloses another mounting member (the surface opposite of 142 which contacts the smaller bore shown in Figure 12), the other mounting member being connected to the mounting member via one or more of the isolation zones or additional isolation zones which allow the mounting member and other mounting member to move substantially independently of each other, and the valve element thus being of a

bulbous element (in the broadest reasonable interpretation the tapered shaped valve element area is considered to be that of a "bulb").

It would have been obvious to one of ordinary skill in the art at the time of invention to substitute a valve as taught by Le Clair with the valve of Olson to have a valve with another mounting member, the other mounting member being connected to the mounting member via one or more of the isolation zones or additional isolation zones which allow the mounting member and other mounting member to move substantially independently of each other and that the valve element is thus being of a bulbous element, since one would have expected the device to perform as equally as well.

Response to Arguments

Applicant's arguments filed 12/31/2009 have been fully considered but they are not persuasive. Applicant's arguments regarding that the LeClair structure 90 is being referred to as the disc shaped mounting member and therefore the valve of LeClair is not a unitary valve, are persuasive. However, the LeClair reference can be interpreted as a unitary one piece valve, in a different interpretation of the reference, as LeClair discloses in Figure 12, that the portion of the valve 141 which is contacting the uppermost horizontal wall section of the groove of 90, is being considered as a disc-shaped mounting member, and therefore the valve 141 of LeClair is a unitary member.



Applicant's argument that the Le Clair reference does not provide a valve element having a maximum transverse diameter greater than a transverse diameter of the isolation zone is not persuasive, as shown in the amended Figure 12 above, the isolation zone, being the open space with a "v-notch" has a smaller diameter, from a transverse cross-section, at the lowest part of the vertex or root, than does the outermost portion or crest part of the valve 141 is shown as having.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig Price whose telephone number is (571)272-2712. The examiner can normally be reached on 8AM - 4:30PM Mon-Fri, Increased flex time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CP 15 March 2010

/C. P./Examiner, Art Unit 3753

/Robin O. Evans/
Supervisory Patent Examiner, Art Unit 3753